THREATENED SPECIES OF THE NORTHERN TERRITORY

OENPELLI PYTHON
Morelia oenpelliensis

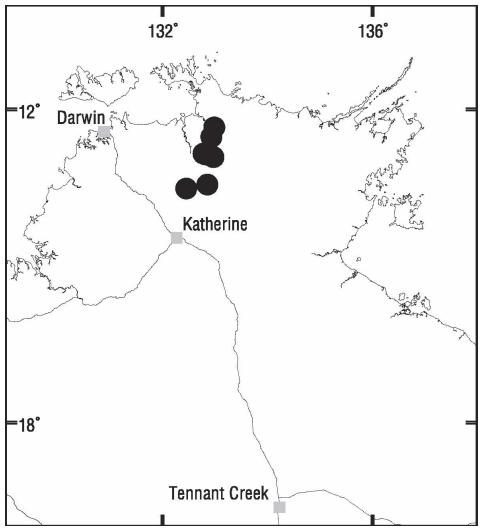
Conservation status
Australia: Not listed.
Northern Territory: Vulnerable.

Description
The Oenpelli python is a very large (to 4 m length) dark olive-brown snake, patterned with darker blotches. The underside is cream to dull yellow.

Oenpelli python. (Photo: Ian Morris)

Distribution
The Oenpelli python is restricted to the sandstone massif of western Arnhem Land. Within this area, it has been reported from the upper catchments of the Cadell, South Alligator and East Alligator River systems.

Conservation reserves where reported:
Kakadu National Park.



Known locations of the Oenpelli python
o = pre 1970; • = post 1970.

Ecology
There have been no detailed studies of this species. It shelters in cracks, caves and crevices of rugged broken sandstone escarpments and gorges; or in large shady trees. Within this environment, it has been reported from monsoon rainforest patches, riparian areas, woodlands, open heathlands and bare rock pavements. Its diet comprises mostly medium to large mammals, particularly possums and macropods.

Conservation assessment
There has been no assessments of total population size or trends in abundance. Hence, it is difficult to provide a detailed assessment of status.

The total area of the western Arnhem Land massif is about 34,000 km^2. Within this area, much of the habitat is probably unsuitable (insufficiently rocky or topographically complex). As a large solitary predator feeding on

prey at relatively low abundance, its population density is probably generally low. On this basis, the total population size is probably under 10,000 mature individuals.

There is some anecdotal indication of at least local decreases, possibly associated with illegal collecting in the most accessible sites. There is also some possibility of decline associated with changing fire regimes.

Accordingly, the Oenpelli python may be classified as **Vulnerable** (under criteria C2a(i)) due to:

- population size estimated at <10,000 mature individuals;
- continuing decline, observed, projected or inferred, in numbers of mature individuals; and
- no subpopulation estimated to contain more than 1000 mature individuals.

The evidence for decline is admittedly scant, circumstantial or conjectural, and there is no information available on population substructure.

Threatening processes

This species is sought by some illicit herpetological collectors. This impact is probably minor and localised, as much of the range is almost inaccessible.

More pervasively, fire regimes across its range have changed over the last 50 or so years, to now include a far higher incidence of extensive hot, late dry season fires (Russell-Smith *et al.* 1998). It is possible that this may increase direct mortality, but, more likely, the resulting vegetation change may reduce habitat suitability either directly for this species or indirectly to its prey species.

Conservation objectives and management

Research priorities are to:
(i) examine the impacts of fire regimes upon the Oenpelli python directly, or its preferred prey species;
(ii) attempt to derive some estimate of relative abundance, habitat associations and total population size;
(iii) collate, where appropriate, traditional ecological knowledge of this species held by Aboriginal landowners in the stone country.

Management priorities are to:
(i) establish a monitoring program for this species, particularly with reference to its response to fire management;
(ii) continue to deter illicit reptile collectors.

A small captive population of this species has been maintained at the Territory Wildlife Park.

Compiled by

John Woinarski
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References

Russell-Smith, J., Ryan, P.G., Klessa, D., Waight, G., and Harwood, R. (1998). Fire regimes, fire-sensitive vegetation and fire management of the sandstone Arnhem Plateau, monsoonal northern Australia. *Journal of Applied Ecology* **35**, 829-846.